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ABSTRACT

This report discusses the extension of lighting facilities to existing recreational areas as well as their incorporation in new facilities as a means of increasing opportunities for recreation. Such an approach has the advantages of (1) making the best use of land in metropolitan areas, where it is at a premium; (2) providing recreational facilities when and where working people are free to use them; and (3) reducing the cost of existing facilities per participant. An appendix lists federal programs that might possibly provide financial and technical assistance for public and for privately owned recreational facilities. (Author)

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Lighting for Outdoor Recreation

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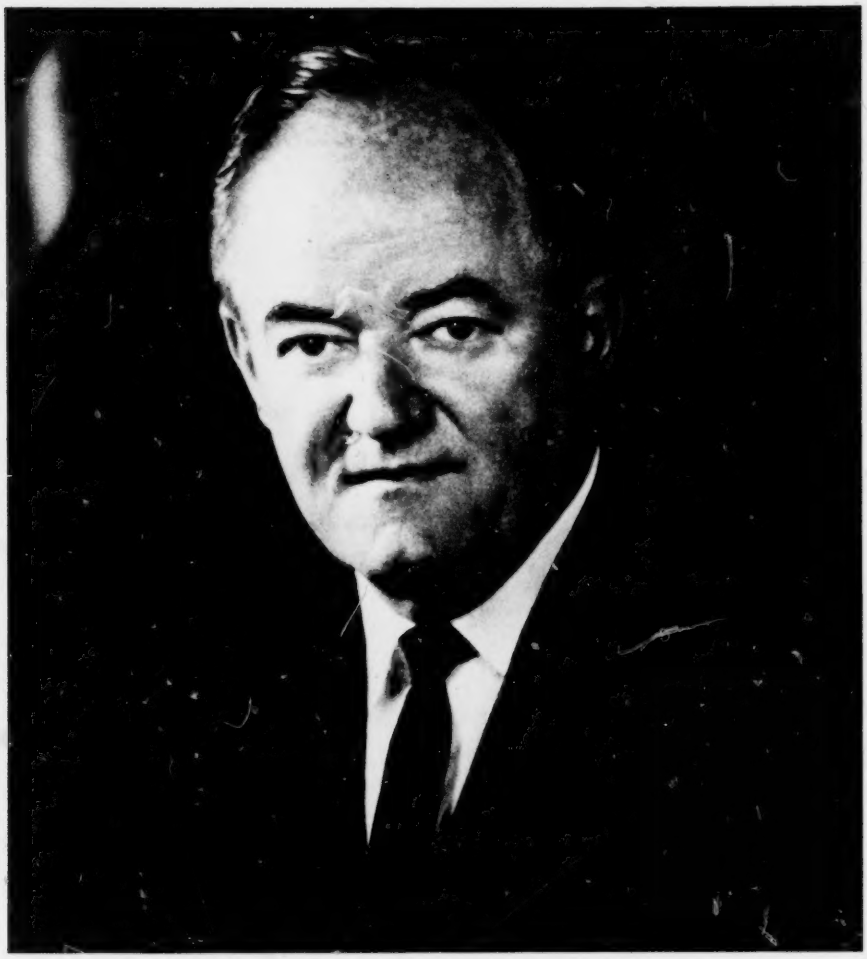

Vice President Humphrey

FOREWORD

Many cities in the United States contain large numbers of children of poor families who are confined by their underprivileged circumstances to the generally limited recreational facilities within the city limits. The increasing population density of U.S. cities has fostered public interest in providing recreational facilities that meet the needs of urban children.

Washington, D.C., has problems typical of most large cities in the United States. As the Nation's capital, however, it has an obligation to set a good example for all other cities. During the summer of 1965, only 17 public playgrounds in the District of Columbia were equipped with lighting and open at night. In the spring of 1966, a shortage of lights again threatened to close most of the city's playgrounds after dark, leaving some 66,000 children without recreational outlets on summer evenings.

The "Buy-A-Light" program was initiated to provide lighting for over 100 public playgrounds in the city. Citizens, businessmen, churches, and labor organizations were asked to contribute. Municipal and Federal agencies gave additional support to the program. The response was rewarding —a major portion of the city's outdoor recreational facilities were equipped with either permanent or temporary lighting as a result.

During the summer of 1966, playgrounds were often crowded to capacity in the evenings. Entire families were able to play together at a time of day when summer heat had subsided and leisure was available. The "Buy-A-Light" experiment proved to be a success.

This report discusses the extension of lighting facilities to existing recreational areas as well as their incorporation in new facilities as a means of increasing opportunities for recreation. This approach has the advantages of (1) making the best use of land in metropolitan areas, where it is at a premium, (2) providing recreational facilities when and where working people are free to use them, and (3) reducing the cost of existing facilities per participant.

Maximum development of our recreational facilities is a civic responsibility, which, if met, will greatly benefit the entire community.

Hubert H Humphrey

Vice President of the United States

An early proponent of providing underprivileged urban children with more recreational opportunities, Vice President Humphrey has demonstrated particular concern for this problem throughout his career of public service. He has sponsored the nationwide summer youth programs and has given his strong support to the use of lights at night to maximize the use of urban recreational facilities.

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CHAPTER 1

Role of lights

Popular forms of recreation

Statistical studies indicate that more than 50 percent of the population will be under 25 years of age in 1985; that more than two-thirds of the population will be centered around major cities; that the time and money available for recreational pursuits are increasing; and that night lights can be used as a means of extending the recreation day. This approach has the advantage of: (1) maximizing the use of land in metropolitan areas, where it is at a premium; (2) providing recreational facilities when and where working people are free to use them; (3) allowing participation when the heat of the day has dissipated; and (4) reducing the cost of existing facilities per participant.

The problem is to supply outdoor recreational facilities in pace with the needs of an expanding and changing population.

A study published in 1962 by the Outdoor Recreation Resources Review Commission of the Federal Government predicted a 58 percent increase in the participation of U.S. citizens in outdoor summer recreation between 1960 and 1976. Between 1960 and 2000, the Commission predicted nearly a tripling of participation in outdoor summer recreation. Part of the answer in meeting this demand is to build new facilities; part of the answer lies in making better use of existing facilities. Efficient night lighting should be considered by recreation directors, concessionaires, private businessmen, and community leaders in their planning for recreational facilities and business.

Present and projected participation in recreation activities for the years 1960, 1976 and 2000, as shown in Chart 1 on page 2, reveal numerous activities, many of which are adaptable to the use of lights.

Potential of lights

Technological advancement now permits after-dark enjoyment of almost every sport previously restricted to daylight hours. Highly popular spectator sports, such as baseball, racing, and football illustrate this trend, as do participant sports such as swimming, golf, and tennis. The filament lamp, developed more than 70 years ago, is approaching the point of maximum light output while lamp development engineers now assert that consumers have only begun to realize the full potential of mercury-vapor lamps which can be made longer lasting and less expensive to operate than filament lamps. In addition, there are new light sources becoming available with even higher light output for less operating dollars. Despite increased costs of labor and materials throughout the economy in general since World War II, and in spite of technological advances in the lighting industry itself, the cost of outdoor lighting equipment is, in fact, 33 percent less than 25 years ago.

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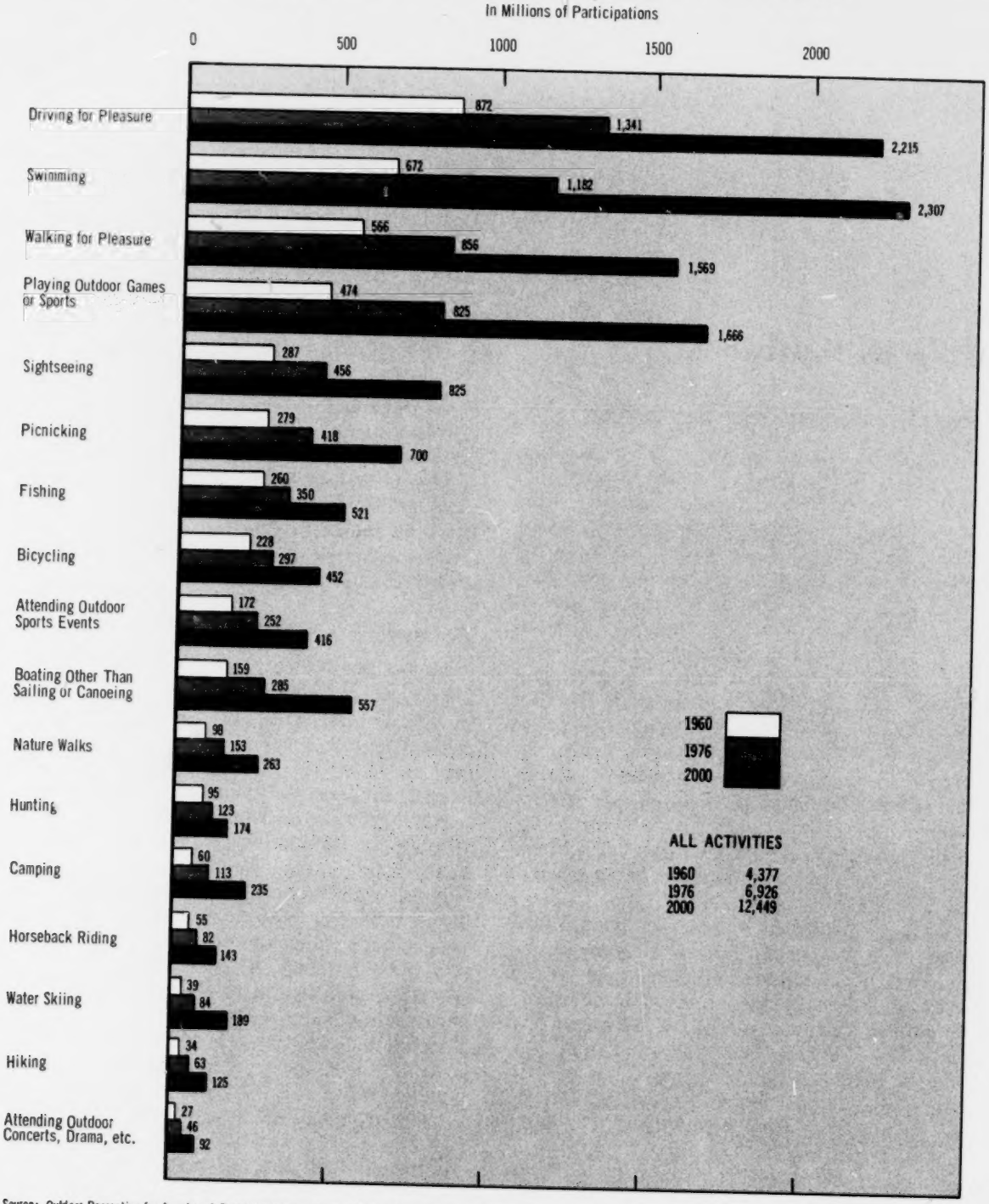
Chart 1.—Number of Occasions of Participation in Outdoor Summer Recreation 1960 Compared With 1976 and 2000



Source: Outdoor Recreation for America, A Report to the President and to the Congress, by the Outdoor Recreation Resources Review Commission, January 1962, Washington, D.C.

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As reported in *The American City*, September 1963, recreation experts attending a National Recreation Congress agreed that lighted recreation facilities:

- Allow entire families to participate in recreation together as a group at a time when all members of the family are free.
- Attract attention by the blaze of lights and encourage attendance by many who usually do not frequent recreation areas.
- Act as a public investment in the deterrent of crimes and accidents which usually are prompted by the cover of darkness.
- Lend a spirit of "neighborliness" to the community by encouraging mass participation in recreational activities.

In assessing the lighting needs of the community, it is important first to survey existing lighted areas and to relate the initial cost of installation and maintenance costs of new lighting to the maximum use potential of the areas under consideration. There are areas in many communities which are equipped already with lights and are easily adapted to recreational needs when not being used for their primary purpose. Some examples are parking lots, particularly those in shopping centers, and areas equipped with protective lighting such as parks.

Since tariff rates imposed by local electric power companies are variable with the regional demands and power source, a conference with local power company officials is a "must" in projecting costs. Cost of the electricity also varies with the type of installation to be lighted —with regard to items such as location, light intensity, horizontal and vertical space covered, terrain, and amount of actual use.

The Edison Electric Institute has coined the term "dusk-to-dawn lighting tariffs" as a means of describing the power companies' techniques of setting a fixed fee on private night lighting. This is a modification of the customary hourly billing. Application of this method of billing is expected to become more prevalent as an increasing number of companies adopt it.

A 1960 countrywide survey conducted by the National Recreation Association indicated that there were 20,208 lighted outdoor recreation facilities in 7,587 cities and counties reporting (see Table 1 on this page). These lighted facilities ranged from A to Z . . . from archery to zoos. Although precise data are not available, it is estimated that approximately 25 percent of recreation facilities which could be lighted are so equipped.

Table 1.—National Recreation Association 1960 Survey on Lighted Outdoor Recreation Facilities

Type of facility	Number reported by: Cities — Number lighted	Cities — Cities reporting	Counties — Number lighted	Counties — Counties reporting	Total — Number lighted	Total — Cities and Counties reporting
Archery ranges	47	43	2	2	49	45
Athletic fields	282	221	15	8	297	229
Baseball diamonds—Regulation	1,178	791	113	45	1,291	836
Baseball diamonds—Junior	419	337	105	24	524	361
Bathing beaches	84	51	16	9	100	60
Boating centers	82	55	43	16	125	71
Bowling greens	68	18			68	18
Camps—Day	23	18	25	10	45	28
Camps—Organized Overnight	25	16	51	18	76	34
Camps—Tourist or trailer	36	19	12	9	48	28
Dance pavilions	243	163	24	11	267	174
Gardens—Special	51	43	2	2	54	45
Handball courts	114	53	2	2	116	55
Horseshoe courts	1,849	353	81	17	1,930	370
Ice skating areas—Natural	1,235	488	85	30	1,320	518
Ice skating areas—Artificial	79	49	39	7	118	56
Mobile recreation units	27	21			27	21
Multiple-use paved areas	894	283	66	16	960	299
Museums—other than nature	71	56	11	9	82	65
Music shells and band stands	280	244	31	17	311	261
Nature trails and centers	7	6	6	3	13	9
Picnic areas	1,845	495	309	49	2,154	544
Play and coasting streets	178	39	2	2	180	41
Shooting ranges	99	82	8	8	107	90
Shuffleboard courts	1,981	300	70	13	2,051	313
Ski centers	32	30	14	12	46	42
Softball diamonds	2,139	808	181	40	2,320	848
Spray pools	180	33	2	2	182	35
Stadiums	342	269	27	13	369	282
Swimming pools, outdoor—shallow	133	73	11	6	144	79
Swimming pools, outdoor—deep	1,145	628	86	34	1,231	662
Tennis courts	2,694	624	206	34	2,900	658
Theaters—outdoor	98	70	9	8	107	78
Toboggan slides—winter	82	34	13	8	95	42
Wading pools	449	250	20	12	469	262
Zoos	28	27	1	1	29	28

Source: National Recreation and Parks Association.

Technical data

A prime consideration in a decision to install lighting apparatus is whether the sport to be lighted is a spectator or participation sport. Cost factors vary with the nature of the activity to be lighted. One technique for measuring the degree of illumination is the footcandle. This represents a unit of direct illumination on a surface everywhere one foot from a uniform

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source of light; it is an arbitrary measurement used in comparing relative brightness of lights. The minimum footcandle requirement recommended for exhibition or tournament sport activities is generally greater than for the casual or informal participation sport.

Participation in sports generally requires a minimum of 15 to 20 footcandles of illumination. However, the specific use for any area may indicate that additional illumination may be desirable. For example, the Illuminating Engineering Society (IES) recommends for world championship boxing and wrestling matches that the ring be lighted with 500 footcandles of light and that the infield for major league baseball games be lighted with 150 footcandles.

Positioning of light sources is a significant cost factor which varies with the nature of the activity. Poles supporting lights are a major part of the expense and the number and positioning of poles is governed by the need to mount and aim the lights so that glare and reflection are minimized, if not eliminated. When mounting height is too low, glare for both players and spectators increases.

For best results, lighting engineers should be consulted before lighting plans are formalized. Lighting, in many respects, requires custom installation and can vary from a few thousand dollars for a simple installation to tens of thousands or more in the lighting of a stadium.

The IES recommends specific minimum mounting heights for various sports depending upon the type of sport and pole locations, and these may vary, anywhere from 20 feet for ground sports (e.g. hockey) to 70 feet for aerial sports (e.g. baseball). Aerial sports require the space above the playing surface to be lighted as well as the ground. This is to compensate for the fact that a baseball, when traveling at a fast speed in the air, creates an illusion of speeding up when passing from lighter to darker areas. Spectator sports require the installation of lights on the field which often exceed the minimal requirements of the players on the field. If there is a demand for television and motion picture facilities to record the play on a regulation football field, IES suggests a desirable minimum of 60 footcandles, and television networks are asking for 250 footcandles for color television.

As observed at the National Recreation Congress in 1950, lights at night also serve to attract people. This factor may be turned to particular advantage by the commercial recreation operator. High poles to project the light into the air as well as onto the ground serve to advertise and attract by making the facility visible from distances.

Flexibility

Since many outdoor sports are seasonal, some sponsoring organizations choose to compromise ideal lighting standards to favor diversity of use. The most common examples are combinations of baseball and football fields, golf course and ski areas, or ice skating rinks and tennis courts. The initial expense of lighting such double fields may be a little greater because of additional lighting equipment required and illumination efficiency may suffer as a result of accommodating both sports. There is, nevertheless, a possibility of realizing greater use-potential. A municipal park, by installing lights over a combination baseball/football field, might extend the use-potential to nine months of the year. The sketch on page 5 describes a lighted combination football/baseball field.

Full use of an entire lighting system may not be necessary during the off-season, as in the case of golf courses serving as ski areas where only part of the course requires lighting for skiing.

Maintenance

Maintenance of lighting facilities and replacement of burned out lamps, along with periodic cleaning, are necessities for the lighted complex. In the interest of efficient servicing and minimum labor costs, the IES suggests replacement of all lamps on predetermined schedules. Every lamp manufacturer has a stated life expectancy for his product. Periodic cleaning of the light receptacles also is recommended to maintain lighting efficiency. This can be done simultaneously with replacement of lamps—keeping in mind the fact that areas with a high degree of air pollution may require more frequent cleaning.

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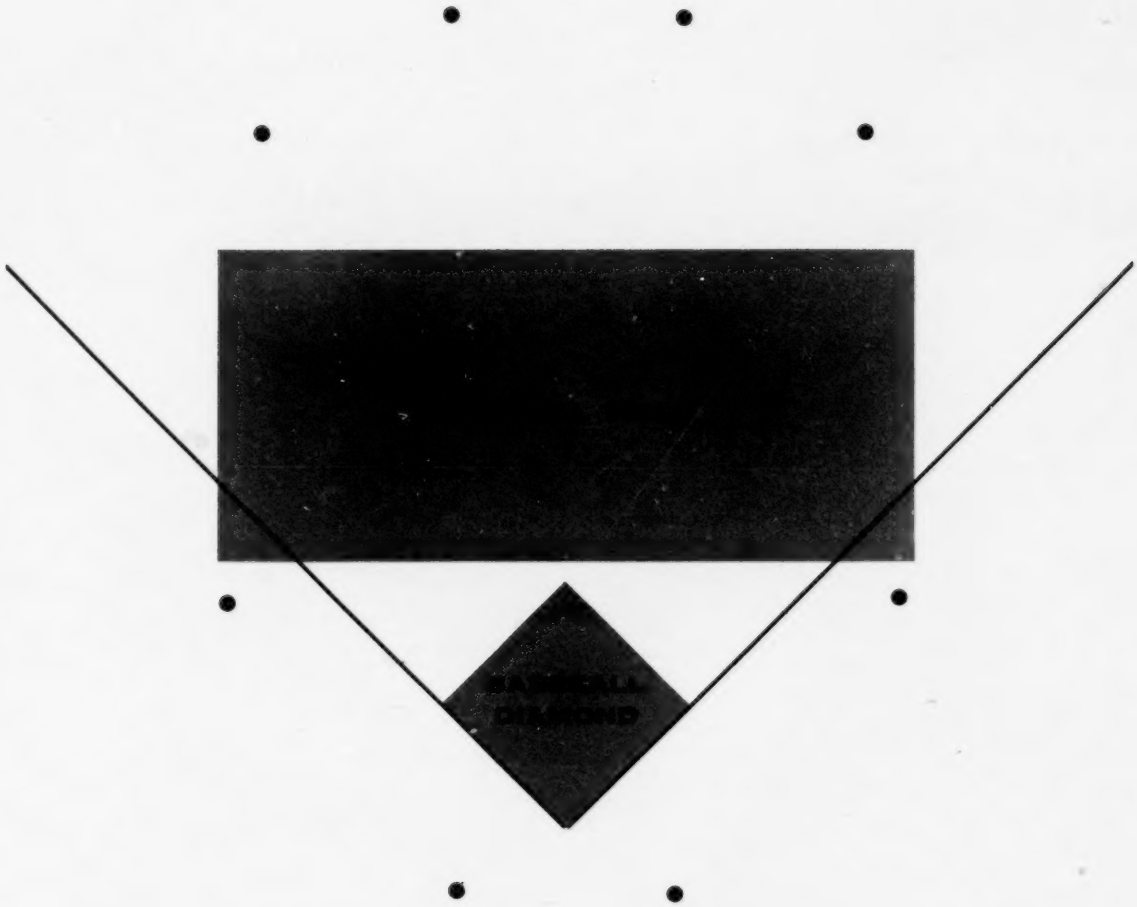


Lighted Combination Football/Baseball Field

Encircling dots represent placement of poles supporting the lights.

Successful programs

WHITE PLAINS, N.Y.

The City of White Plains, N.Y., was confronted with a problem when its recreation department noted a falling off in interest where once the populace had directed high enthusiasm toward baseball and softball. The reason, it was discovered, was the lack of daylight for weekday participation. Interest was slack on the weekends when families preferred to spend the time together. On weekdays, the pressure of returning from work, bolting supper, and appearing on the ball field ready to play by 6:45 was too much to ask.

Lighting the playing fields provided the solution.

Twelve towers were erected to light several playing fields and accommodate activities such as baseball, softball, football, soccer, lacrosse, marching events, skating, track and field events, tennis and other recreation activities; some of these may be carried on simultaneously.

Total cost of the installation was $95,000. The park operates 6 to 7 nights per week between 8 and 11 P.M., and now is extremely active. Management conservatively estimates that attendance is increased by 600 participants and spectators per day when lights are in use.

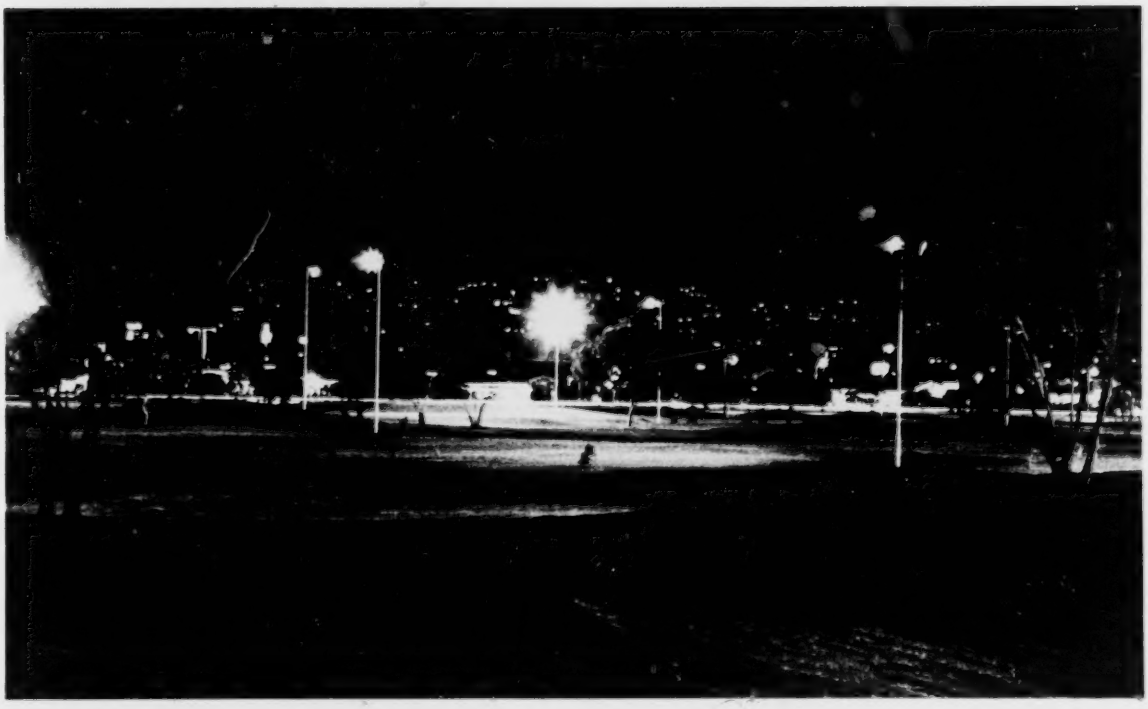
COLONIAL COUNTRY CLUB LYNNFIELD, MASS.

Previously restricted to the heaviest demand on weekends, the Colonial Country Club in Lynnfield, Mass., sought a way for its golf club membership to play during the week. The search for a solution ended when the golf facility became the country's first regulation course to be equipped with quartz iodine lighting—so successful that in 1964 it hosted the first night time professional golf tournament.

George Page, owner-operator of the club, lauds the success, saying: "To many people, golf has been a mere weekend sport resulting in crowded course conditions. Now a man working days will be able to enjoy a post-dinner round of golf."

White Plains, N.Y.

Colonial Country Club, Lynnfield, Mass.



Mission Bay Golf Center Near San Diego, Calif.

Mont Habitant, Quebec, Canada

Oglebay Park, Wheeling, W. Va.

Irish Hills Sports Park, Southeastern Michigan

MISSION BAY GOLF CENTER NEAR SAN DIEGO, CALIF.

Lighting the 18-hole Mission Bay Golf Center course near San Diego, Calif., has demonstrated that a recreation facility can double its revenue intake by the installation of lights. The entire course is made available for night use by the initial installation cost of $70,000.

Reaction of its users has been enthusiastic, some expressing the sentiment that the ball is easier to spot in flight against the dark background of the night. The fairway is illuminated with 3 to 7 footcandles, the tees with 15 footcandles, and the greens with approximately 10 footcandles. Careful attention was directed to features of the landscape when installing lights to highlight the landscaping, such as a waterfall on the property.

MONT HABITANT, QUEBEC, CANADA

As with golf, skiing benefits the greatest number of persons when it is available near metropolitan areas. Lighted slopes have their greatest success when available for an evening of entertainment to offset the advantages of more desirable, but less accessible, mountain slopes.

This ¾-mile, lighted slope purportedly provides a challenge for beginning skiers as well as the expert. It is located just 50 miles northeast of Quebec. Degree of illumination consists of approximately 15 footcandles on top of each hump and 3 to 4 on the downhill side, with dips and hollows being readily distinguishable.

OGLEBAY PARK, WHEELING, W. VA.

A public facility has turned the slack golfing season into an asset with the installation of a snow-making machine and lights to extend golfing and skiing another three hours daily. This 18-hole, par-three golf course is equipped with 31 tapered steel poles for mounting the lights. Another 60 to 80 days and nights have added to the usefulness of the lighted facility by adapting existing equipment for skiing. No repositioning or re-aiming of the lights is necessary, and only a part of the system is needed for winter use.

The total operating costs averaged over a year's time are approximated at about $2 per hour. Cost of lighting equipment and installation was about $15,000, which the investors expect to be easily offset through increased revenues.

IRISH HILLS SPORTS PARK
SOUTHEASTERN MICHIGAN

Appealing to recreation seekers from nearby Detroit, 30 miles distant, and Toledo, 50 miles away, the attraction of this cluster of sandy mounds and fresh water lakes in an otherwise flat region was further enhanced as a recreation area when developers added $550,000 worth of improvements, including a snow-making machine and lighted golf course. In addition to providing basic facilities for skiing and golf, as the season dictates, tobogganning and skating also are available for winter nights.

Underground pipes are provided for watering greens and tees; the pipes are used in winter for making snow. Extra care was taken to avoid glare to surrounding areas. The nature of the light is such that many golf players assert yellow balls are more visible under the mercury vapor lights than the usual white.

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CHAPTER 2

Socio-economic benefits

Commercial

The service rendered by extending the amount of daily time that the public can devote to recreation is a praiseworthy goal and also can be a profitable one. Examples have been cited where private business has been able to apply lighting principles commercially.

Manufacturers of related sporting goods and retail stores also feel the effects of increased participation in sports through the use of lights. Table 2 shows how sales have increased. Trade sources state that the increases are attributable in large part to use of lighted facilities.

Table 2.—Retail Sales By Products

Category	Millions of dollars	
	1962	1963
Archery supplies	29.3	33.8
Baseball equipment	70.9	73.0
Firearms and supplies	254.3	269.0
Football, basketball, boxing	50.8	53.0
Golf equipment	124.5	139.4
Hockey supplies	5.7	6.6
Playground equipment	60.4	65.0
Skates (roller & ice)	31.7	33.8
Tennis equipment (lawn)	15.3	16.4
Winter sports equipment	20.0	25.0
Total	662.9	715.0

Source: Small Business Administration, Washington, D.C.

General Electric sees great potential in lighted recreational facilities, concluding that there is "hardly a sport that cannot now be played at least as well at night as by day." Company officials list activities which have particular appeal to private business as par-3 golf courses, driving ranges, skeet ranges, amusement centers, swimming pools, drag strips, race tracks, marinas, tennis courts, and boat docks. General Electric suggests that the cost of lighting a typical nine-hole golf course—$65,000 to $75,000—can be expected to pay for itself within 5 years. Expenditures for lighting should, of course, be properly related to the cost of construction of the golf course and the price of the land upon which the course is situated.

The value of shipments of outdoor lighting equipment, as shown in Table 3, taken from the Census of Manufactures, doubled between 1958 and 1963.

Table 3.—Value of Shipments of Outdoor Lighting Equipment, 1958-1963

SIC Product Code	Product Outdoor Lighting Equipment (Excluding Lamps)	Value of shipments including interplant transfers	
		1958	1963
3642–17 18 19 21 23 25 27 39 41	Area and sports lighting luminaries (including service stations floodlights, underwater, fountain, and swimming pool); Post top decorative area lighting fixtures; Poles, newels, standards, brackets, and accessories.	$22,296,000	$46,278,000

Source: Census of Manufacturers, Bureau of the Census.

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Community gain

Benefits to the community are as varied as they are incapable of being converted into dollars and cents figures. It is difficult to put a price or value on a healthy, vigorous community consisting of a populace which is alive with interests and the means of fulfillment. The role lights will play in this function reaches its greatest impact in the crowded metropolitan areas. Although there is one major obstacle in the installation of lights—neighbors might look with disfavor upon a lighted playground next door—there are methods and techniques which can be used to keep glare to a minimum. In some instances, application of aesthetic lighting principles has served to beautify the neighborhood.

New York City launched a program to light the streets and playgrounds in neighborhoods where the incidence of accidents and crime was attributed to poor lighting. In connection with the program, the commissioner of the city's Department of Water Supply, Gas and Electricity stated: "We know from experience that there is a great relationship between good lighting and reduced crime."

Lighted facilities are of value in poverty pockets of metropolitan areas, where the families have insufficient income to provide forms of recreation within the home. Their recreation day is extended and all may participate in outdoor activities as a family unit.

The New York City Park Department's program to light up playgrounds achieved impressive success in reducing vandalism. At the end of the first year of lighted facilities, vandalism was decreased in Brooklyn by 86 percent; Manhattan, 81 percent; and Bronx and Queens, 50 percent. Destruction of the lights also has been overcome by the installation of shatterproof plastic refractors in the lighted Patriot's Park in Tarrytown, New York.

In some installations, coin meters have been added so that participants may pay to turn on the lights when they want to use the facility (e.g. tennis courts), thereby eliminating unnecessary waste of electricity when the facility is not in use.

CHAPTER 3

Outdoor recreational needs

Population

The outdoor recreational needs of the United States reflect population size, ratios, and trends. Therefore it is necessary to recognize these significant facts about the U.S. population:

- It is steadily increasing in size, an estimated 200 million by 1967.
- It is becoming younger in composition, one-half are under age 25 by 1985.
- It will have more older people; the number over age 65 is increasing by more than 1,000 each day.
- It is being concentrated in large metropolitan areas; two-thirds already live in metropolitan areas.
- More people are getting more time and money for recreation; income is increasing and hours of work are decreasing.

Population increase

The Nation's population is increasing. In a span of 4 years, 1960 to 1964, U.S. population expanded by some 12 million. By 1967, it is estimated that the population will reach 200 million. The U S. Bureau of the Census projects a population of approximately 280 million by 1985. (See Table 4 on this page).

Table 4.—Estimates and Projections of the Population of the United States, by Age, Assuming Continuation of the Recent Level of Fertility: 1960 to 1985

[In thousands. Figures relate to July 1 and include Armed Forces abroad. Series Y Projections assume (1) a continuation of the 1960–63 level of age-specific fertility, (2) slightly declining mortality and (3) an annual net immigration of 300,000.]

Age	1960	1963	1965	1970	1975	1980	1985
All ages	180,676	189,278	195,137	211,700	231,508	254,449	279,807
Under 5 years	20,364	20,722	21,249	24,254	28,136	31,861	34,847
5 to 9 years	18,825	20,012	20,420	21,284	24,278	28,147	31,860
10 to 14 years	16,910	18,000	18,888	20,469	21,332	24,320	28,182
15 to 19 years	13,465	15,536	16,977	18,941	20,516	21,376	24,356
20 to 24 years	11,112	12,600	13,623	17,104	19,057	20,624	21,479
25 to 29 years	10,931	10,971	11,319	13,795	17,254	19,195	20,753
30 to 34 years	11,978	11,385	11,055	11,425	13,885	17,322	19,252
35 to 39 years	12,542	12,343	12,003	11,079	11,448	13,889	17,299
40 to 44 years	11,681	12,261	12,459	11,917	11,010	11,378	13,790
45 to 49 years	10,926	11,234	11,483	12,239	11,715	10,833	11,200
50 to 54 years	9,655	10,255	10,585	11,121	11,859	11,361	10,518
55 to 59 years	8,465	8,866	9,169	10,046	10,567	11,279	10,816
60 to 64 years	7,162	7,528	7,805	8,454	9,278	9,777	10,450
65 to 69 years	6,264	6,242	6,308	6,892	7,484	8,231	8,694
70 to 74 years	4,769	5,093	5,188	5,239	5,743	6,258	6,906
75 to 79 years	3,084	3,404	3,585	3,901	3,963	4,364	4,780
80 to 84 years	1,501	1,826	1,962	2,281	2,497	2,555	2,831
85 years and over	940	1,002	1,060	1,258	1,485	1,678	1,796

Source: Bureau of the Census, U.S. Department of Commerce.

Population composition

Moreover, the Census Bureau also estimates significant changes in age groups over the next 20 years. A rough computation from Table 4 on page 14 shows that in 1960 about 45 percent of the population was under 25. Figures from the same chart, indicate that this under-25 age group will constitute over 50 percent of the population by 1985.

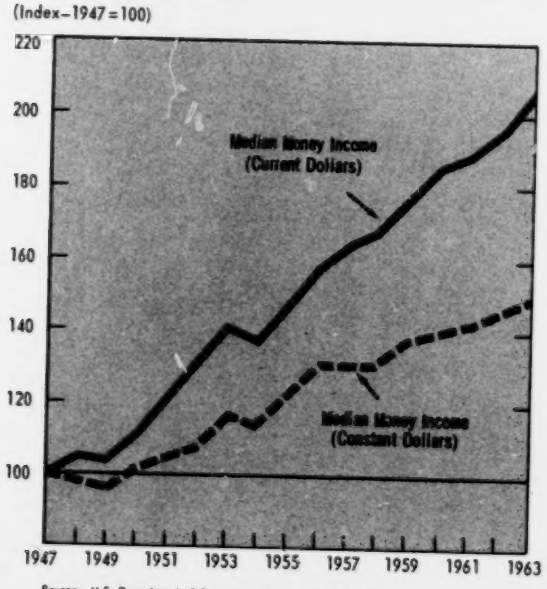
In addition, the number of Americans reaching age 65 is increasing by 1,000 a day and a greater amount of productive leisure time is available to them because of improved health and retirement pensions.

Geographic concentration

Another characteristic of the population, of no small importance when considering the accessibility and economic feasibility of outdoor recreational facilities, is the degree of concentration in an area. The Census Bureau reports that in 1910 approximately one-third of the U.S. population was living on farms; by 1963, only 7 percent were living on the farm.

Highlighting this urban population concentration even further, the greatest single concentration of people in this country centers in the "Northeast Corridor," which comprises less than 2 percent of the nation's area and at the same time contains more than 21 percent of the total population. Thus, two-thirds of the population presently live in large metropolitan areas.

Chart 2.— **Index of Median Family Income in Current and Constant Dollars, for the United States, 1947-1963**



Source: U.S. Department of Commerce, Bureau of the Census.

Increased leisure and income

The need for increased outdoor recreational facilities is heightened by the fact that the U.S. worker's productivity gains have resulted in an increase in leisure. The average hours per week of production workers engaged in manufacturing decreased from 51.0 in 1909 to 39.7 in 1960. This has been accompanied by sizeable wage increases, a substantial part of which is expended on entertainment and recreation. Wages of families and persons were at a record high in 1963, as indicated by Chart 2.

The Outdoor Recreation Resources Review Commission has estimated the future growth for some of the leading factors influencing public demand for outdoor recreation. The projected changes in income, leisure, and travel are expected to increase at a pace more rapid than population for the years 1976 and 2000.

Chart 3 on page 15 summarizes the pertinent factors that highlight the need to expand the usage of outdoor recreational facilities.

The effective use of existing outdoor recreation facilities can be increased greatly through intelligent use of night lighting. Expanded use is necessary to meet the recreational needs of an increasing population enjoying more income and more leisure. These result in a greater demand for outdoor recreation and entertainment facilities.

Most recreation service facilities do not provide maximum return on investments because they are restricted to daytime programs. Lighted outdoor recreation areas provide maximum return on investment once the essential ingredients for a successful lighting program are assembled.

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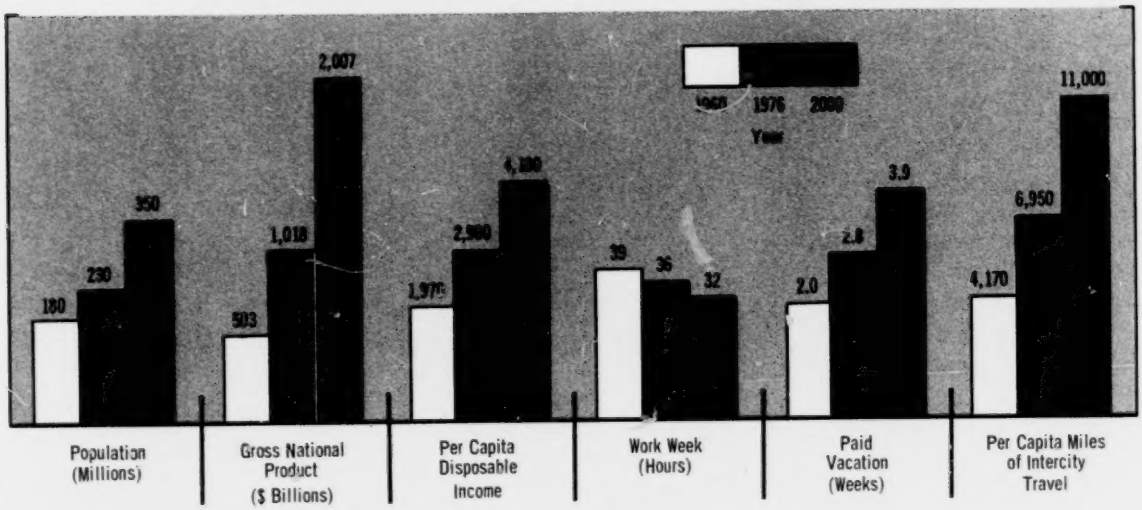
Chart 3.—Estimated Changes in Population, Income, Leisure, and Travel (for the Years 1976 and 2000 Compared With 1960)



Source: Outdoor Recreation for America, A Report to the President and to the Congress, by the Outdoor Recreation Resources Review Commission, January 1962, Washington, D.C.

Federal Government Programs Appendix

The following list of Federal Government programs may possibly provide financial and technical assistance for public and privately owned recreational facilities. Those Federal Government agencies having loan funds available to assist private businessmen are:

U.S. Department of Agriculture
U.S. Department of Commerce
Small Business Administration

The Federal Government agencies administering programs which may provide funds to publicly sponsored organizations working in the furtherance of civic programs are:

U.S. Department of Agriculture
General Services Administration
U.S. Department of Housing and Urban Development
U.S. Department of the Interior

A summary format is used to familiarize the reader with the general outline of each program for a determination of whether further inquiry may be warranted. The primary source for the Federal programs is the *Catalog of Federal Programs for Individual and Community Improvement,* released by the Information Center of the Office of Economic Opportunity, Washington, D.C. This material was supplemented by the booklet, *Federal Assistance in Outdoor Recreation,* compiled by the Bureau of Outdoor Recreation, U.S. Department of the Interior, Washington, D.C., and through consultation with representatives of the Federal Government agencies listed in this appendix.

Aid to private individuals

U.S. Department of Agriculture

Program Description

Farmers Home Administration — Loans for Recreational Purposes

Provides loans for recreation enterprises to farmers and ranchers who personally manage and operate not larger than family farms so that they may develop enterprises that will supplement their farm income.

Loans may be used to develop land and water resources; repair and construct buildings; purchase land, equipment, livestock, and related recreational items; and pay necessary operating expenses.

Some examples of recreational enterprises that may be financed for farmers are: camping grounds, swimming facilities, tennis courts, riding stables, vacation cottages, lodges and rooms for visitors, lakes and ponds for boating and fishing, docks, nature trails, picnic grounds, and shooting preserves, golf courses, youth camps, and winter sports.

Beneficiaries:

Applicants must:

1. Be unable to provide the needed funds or obtain the required credit elsewhere at reasonable rates and terms.
2. Have enough experience, background, or training to be successful in the farming and recreation enterprise for which funds are needed.
3. Have the necessary character, industry, and ability to carry out the proposed enterprise.
4. After the loan is made, be a tenant or owner operating a farm that is not larger than a family farm and receive some income from farming (income from recreation enterprises is not considered income from farming).
5. Be a U.S. citizen of legal age.

Further Information:

Farmers Home Administration
U.S. Department of Agriculture
Washington, D.C. 20250

OR

County Farmers Home Administration Office

U. S. Department of Commerce

Program Description:

Economic Development Administration Program

Provides:

1. Loans up to 100 percent to assist in financing public works, loans up to 65 percent for industrial and commercial expansion, and guarantees up to 90 percent of associated working capital loans.
2. Grants for public works and development facilities.
3. Technical assistance and research.
4. Loans and grants to redevelopment areas and centers in multicounty development districts.

Beneficiaries:

Proposals must offer substantial promise of increasing economic development commensurate with Federal funds involved.

Assistance available in:

1. Redevelopment areas — counties, labor areas, and cities over 250,000 where employment or family income is substandard.
2. Economic Development Districts—multicounty districts including at least two redevelopment areas where programs are beyond realistic capacity of a single redevelopment area.
3. Economic Development Regions—multistate economic regions where regional commissions are created to facilitate solutions for economic problems too large or complex for treatment on a narrow basis.

Further Information:

Economic Development Administration
U.S. Department of Commerce
Washington, D.C. 20230

Small Business Administration

Program Description:

SBA Financial and Technical Assistance

Provides financial and technical help to small businesses, defined generally as wholesale—annual sales of not more than $5 million, retail or service—annual sales or receipts not exceeding $1 million, and manufacturing—where employment is below a certain number depending upon the specific industry.

For financial assistance, the SBA may provide three types of help:

1. Guaranteeing up to 90 percent or $350,000, whichever is less.
2. Participating with a bank to make a loan, with the SBA share not to exceed a maximum of $150,000.
3. Direct loan not to exceed a maximum of $100,000.

Such financial assistance is available to construct, expand, or convert facilities, purchase buildings, equipment, or materials, or obtain working capital.

Beneficiaries:

Applicant must meet general credit requirements and must have exhausted the commercial sources of financing available.

In order to use its resources most effectively, SBA makes loans on an objective basis according to the nature of the business and its contribution to overall public policy in helping to meet national goals and local needs. Loans to recreational or amusement facilities will not be made unless the facilities contribute to the health or general well-being of the public.

Further Information:

Small Business Administration
Washington, D.C. 20410

OR

Regional Office
Small Business Administration

Aid to public organizations

U.S. Department of Agriculture

Program Description:

Farmers Home Administration — Financial Assistance to Small Towns and Rural Groups

This program makes loans to public bodies and nonprofit organizations primarily serving rural residents to develop recreational facilities and areas among other conservation-oriented programs.

Recreational facilities financed include:

1. Ponds, lakes, parks and picnic areas.
2. Sports areas including athletic fields and facilities, golf courses, target ranges and ski slopes.
3. Camping facilities such as tent platforms, dining halls, cabins, electric and water connections for trailers, sanitation facilities and roadways.
4. Forest trails and natural scenic attractions.
5. Fishing waters, docks and other related facilities.
6. Hunting areas and preserves.
7. Access roads necessary to connect recreational areas with public roadways.
8. Domestic water, irrigation, drainage, or waste disposal systems and parking areas in connection with recreational facilities.

Beneficiaries:

Public or quasi-public bodies and nonprofit corporations serving residents of open country and rural towns and villages up to 5,500 population not part of an urban area are eligible when:

1. They are unable to obtain needed credit at reasonable rates and terms from other sources.
2. The proposed recreational facilities primarily will serve farmers and other rural residents by either direct use or economic benefits, and the borrowing organization will remain under local control, although others may use the facility.
3. They have legal capacity to borrow and repay money, to pledge security for loans and operate the facilities.
4. They are financially sound and will be effectively organized and managed.

Further Information:

Farmers Home Administration
U.S. Department of Agriculture
Washington, D.C. 20250

OR

County Farmers Home Administration Office

General Services Administration

Program Description:

Donation of Federal Surplus Personal Property

Provides for donation of personal property, which is no longer needed by the Federal Government, for educational, public health, civil defense, and public airport purposes. Surplus personal property may include vehicles, office machines, hardware, scientific and electronic equipment and many other items that can be used for approved public purposes.

Beneficiaries:

Surplus property may be donated by the Administrator of General Services solely to the following beneficiaries for their approved program use:

1. Tax-supported or tax-exempt universities, colleges, schools, educational radio or TV stations, schools for the mentally retarded or physically handicapped, and public libraries.
2. Tax-supported or tax-exempt hospitals, health centers, medical institutions, and clinics.
3. Civil defense organizations.

4. Service educational activities including American Red Cross, Boy Scouts of America, Boys Clubs of America, Camp Fire Girls, Civil Air Patrol, Girl Scouts of America, Naval Sea Cadet Corps, schools with military-connected programs.
5. Public airports.

Further Information:

Director, Donation Division
Property Management and Disposal Service
General Services Administration
Washington, D.C. 20405

National service educational activities should contact their regional headquarters.

Department of Housing and Urban Development

Program Description:

Urban Beautification Program

Provides grants to assist local programs of urban beautification and improvement of open space and other public land in urban areas.

Grants may be used for park development, such as basic water and sanitary facilities, paths and walks, landscaping, shelters, and recreation equipment; upgrading and improvement of public areas, such as malls, squares, and waterfronts; street improvements such as lighting, benches, and tree planting; and activities on behalf of the arts, such as facilities for outdoor exhibits.

An applicant will be required to establish a base figure representing its usual expenditures for beautification activities during the past two years. Only the costs of carrying out a program which exceeds this base figure will be eligible for assistance.

Grants covering up to 90 percent of the cost of activities may be approved in demonstration projects having special value in developing and demonstrating improved methods and material. Night time lighting of recreational areas is an eligible activity. Assistance is limited to $25,000 per lighted installation. Assistance for lighting spectator recreational facilities is not eligible.

Beneficiaries:

Applicants are limited to States or local public bodies. To be eligible, local programs of urban beautification and improvement must be significant and effective efforts, involving all available public and private resources for beautification and improvement of open space and other public land in the community, and must be important to comprehensively planned development of the locality.

Further Information:

Renewal Assistance Administration
Department of Housing and Urban Development
Washington, D.C. 20410

OR

Assistant Regional Administrator for Metropolitan Development
Regional Office
Department of Housing and Urban Development

Program Description:

Open Space Land Program

Provides 50 percent matching grants to public bodies for acquiring, developing, and preserving open space land for permanent public use, thereby helping to prevent urban sprawl, preventing the spread of blight, and providing recreation, conservation, and scenic areas.

Grants may cover the following activities: acquisition of title or other permanent interests in open land for permanent public open space use for park and recreation purposes, conservation of natural resources, and historic or scenic purposes; acquisition or

title or other permanent interests in developed land in built-up areas to be cleared and used for open space use (including demolition costs) in areas where open space cannot effectively be provided through the use of existing undeveloped land; and, development of open space land which must have been acquired under this program, including such items as basic sanitary facilities, paths, walks, landscaping, and shelters, but not such major items as docks, amphitheaters, swimming pools, and golf courses. Night time lighting of recreational areas is an eligible activity. Assistance is limited to $25,000 per lighted installation. Assistance for lighting spectator recreational facilities is not eligible.

Beneficiaries:

Grants may be made to State, regional, metropolitan, municipal, or other local public bodies established by State law, local law, or by interstate compact or agreement. The applicant must have the authority to acquire, develop, and/or preserve open space land, and must be empowered to receive and spend Federal funds for this purpose.

Grants may be made only where assistance is needed for carrying out a unified or officially coordinated program, which meets criteria for provision and development of open space land as part of the comprehensively planned development of the area.

Further Information:

Renewal Assistance Administration
Department of Housing and Urban Development
Washington, D.C. 20410

OR

Assistant Regional Administrator for Metropolitan Development
Regional Office
Department of Housing and Urban Development

Program Description:

Urban Renewal Projects

Provides grants, planning advances, and temporary loans and guarantees to help public agencies eliminate and prevent blight in residential and nonresidential areas. Activities can involve land clearance, rehabilitation of existing structures, enforcement of housing codes or any combination of the foregoing.

In most localities, the Federal grant amounts to two-thirds of net project cost. Communities under 50,000 population may receive grants up to three-fourths of net project cost. Demonstration projects can qualify for grant assistance on a two-thirds basis.

Relocation payments may be provided to displaced residents and businesses. Displaced businesses can qualify for SBA loans. Special FHA mortgage insurance programs are available for renewal of residential properties, and displacees can obtain better terms for home purchase or priority occupancy in certain rental housing. Owners and tenants can obtain direct loans for property rehabilitation, and low income homeowners are eligible for property improvement grants. Public agencies may claim local hospital and university expansion programs as part of their local share contributions.

Beneficiaries:

The local public agency, depending on State enabling legislation, may be a public corporation such as a local renewal agency or a local housing authority; or a department of local government. The urban renewal project must be approved by resolution of the local governing body. The locality must adopt and have certified by HUD a Workable Program for Community Improvement.

Further Information:

Renewal Assistance Administration
Department of Housing and Urban Development
Washington, D.C. 20410

OR

Assistant Regional Administrator for Renewal Assistance
Regional Office, Department of Housing and Urban Development

Program Description:

Urban Renewal Service

Provides technical and other professional assistance to communities for preparation and development of their renewal plans and programs (including rehabilitation projects that do not require Federal financial assistance) and self-liquidating redevelopment projects.

The Urban Renewal Service also covers publication and dissemination of technical and advisory materials for the information and guidance of local public agencies and others concerned with urban renewal.

Beneficiaries:

Technical and other professional assistance is available to communities undertaking or planning to undertake renewal plans and programs. Publications and similar materials are generally available to anyone concerned with urban renewal.

Further Information:

Renewal Assistance Administration
Department of Housing and Urban Development
Washington, D.C. 20410

OR

Assistant Regional Administrator for Renewal Assistance
Regional Office, Department of Housing and Urban Development

U.S. Department of the Interior

Program Description:

Bureau of Outdoor Recreation — Land and Water Conservation Fund Outdoor Recreation Assistance Program

Financial assistance is available to States and their political subdivisions for planning, acquiring, and developing all types of outdoor recreation areas and facilities. Grants are made on a 50–50 matching basis for approved projects.

Basic program objectives are:

1. Prime importance is attached to projects in areas where concentrations of people live.
2. Projects must be available for use by the general public.
3. Development of basic rather than elaborate facilities is favored.
4. Projects furnishing a broad range of outdoor recreation uses and experiences are preferred.

Approved projects have included multi-purpose metropolitan parks, snow ski areas, urban playgrounds, golf courses, swimming pools, hiking and bicycling paths, nature interpretation areas, marinas, fisherman piers, and boat launching ramps.

Beneficiaries:

States and, through them, local levels of government may apply for a grant-in-aid for an approved outdoor recreation project. All project proposals (applications) must be submitted to the Bureau through the State Liaison Officer.

In order to establish eligibility for acquisition and development of financial assistance for its State and local public agencies, the State must develop and maintain a current comprehensive Statewide outdoor recreation plan. All States, the District of Columbia, Guam, American Samoa, and Puerto Rico have plans which now satisfy this eligibility requirement.

Proposed projects must be in accord with and meet the high-priority needs identified in the State Plan. The State Liaison Officer has the initial responsibility of determining which projects shall be supported and the order in which funding will be requested.

Further Information:

Bureau of Outdoor Recreation
U.S. Department of the Interior
Washington, D.C. 20240

Program Description:

Bureau of Outdoor Recreation Technical Assistance

This program provides technical assistance and advice to States, their political subdivisions, and private interests in a wide variety of outdoor recreation matters. The aid covers recreation planning, program financing, facility development, and an assortment of other technical aspects related to outdoor recreation.

The program develops basic economic and technical reports that are prerequisite to outdoor recreation planning and programing.

This program also aims to provide nontechnical guides containing information to help shape outdoor recreation decisions by public officials, community leaders, civic clubs, business groups, and others. Ten Community Outdoor Recreation Action Guides should be available for distribution, one a month, beginning in August 1967.

The program includes an information clearinghouse service on subjects and actions dealing with outdoor recreation and natural beauty.

Beneficiaries:

Any State, county, city, community, organization or private interest concerned with improving, conserving, or expanding outdoor recreation opportunities and resources may seek technical assistance. Requests for assistance will be sympathetically considered and acted on to the extent of financial resources of the Bureau.

Further Information:

Bureau of Outdoor Recreation
U.S. Department of the Interior
Washington, D.C. 20240

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